1 Revision

1. **Write the following in words :**
Ans. (a) Forty thousand and four.
   (b) Eight lakh eighty thousand seven hundred and fifty- five.
   (c) Seven lakh fifty thousand.
   (d) Three lakh thirty-one thousand forty-three.

2. **Write the following in figures :**
Ans. (a) Sixty thousand, three hundred nine **60309**
   (b) Six lakh, ninty-nine thousand and four **699004**
   (c) Three lakh three thousand and thirty-three **303033**
   (d) One crore fifty-five thousand ninety-one **10055091**

3. **Fill in the blanks :**
Ans. (a) 380085 = **3** lakhs + **8** ten thousands + **0** thousands + **0** hundreds + **8** tens + **5** ones
   (b) 98945 = **9** ten thousands + **8** thousands + **9** hundreds + **4** tens + **5** ones

4. **Write in expanded form :**
Ans. (a) 48947
   $= 40000 + 8000 + 900 + 40 + 7$
   (b) 38971
   $= 30000 + 8000 + 900 + 70 + 1$
   (c) 438000
   $= 400000 + 30000 + 8000$

5. **Write 900000 + 300000 + 20000 + 7000 + 600 + 20 + 7 in short form.**
Ans. $900000 + 300000 + 20000 + 7000 + 600 + 20 + 7 = 1227627$

6. **Write the greatest and the smallest 6 digit numbers that can be formed with the digits 5, 4, 3, 7 and 9.**
Ans. Greatest 6 digit number $= 997543$
   Smallest 6 digit number $= 334579$

7. **Write the place value of :**
Ans. (a) 7000   (b) 8000

8. **Look at the pattern carefully and then fill in the blanks :**
Ans. (a) 4501, 4601, 4701, **4801**, **4901**, **5001**
   (b) 58310, 58610, 58910, **59210**, **59510**, **59810**
   (c) 2000, 2010, 2020, **2030**, **2040**, **2050**

9. (a) The greatest 7 digit number $= $**9999999**
   (b) The smallest 9 digit number $= $**100000000**
   (c) 532888 comes just before $= $**532889**
   (d) 88000 comes just after $= $**87999**

10. **Add the following :**
Ans. (a)
```
  6 0 5 0 0
    6 0 0 0
      6 0 0
        6 0
  +      6
  6 7 1 6 6
```
(b)
```
1 2 3 4 5 6
  3 4 5 6 7
    2 3 4 5
      1 2 3
        1 2
  +      1
1 6 0 5 0 4
```

11. **Subtract the following :**
Ans. (a)
```
  7 7 7 7 7 7
+ 7 7 7 7 7
7 0 0 0 0 0
```
(b)
```
1 0 0 0 0 0
- 1 0 0 0 0
  9 0 0 0 0
```

12. **Find the value of :**
Ans. (a) $68690 \times 1000 = $ **68690000**
   (b) $4483 \times 47 = $ **210701**
   (c) $54321 \times 100 = $ **5432100**
   (d) $91764 \times 123 = $ **11286972**
   (e) $98974 \times 10 = $ **989740**
   (f) $84346 \times 2178 = $ **183705588**

13. **Find the quotient and remainder :**
Ans. (a) $607548 \div 38$
```
38) 607548 (15988
    -38↓
     227
    -190↓
     375
    -342↓
     334
    -304↓
      308
     -304
       04
```
Quotient $= 15988$
Remainder $= 4$

(b) $507642 \div 32$
```
32) 507642 (15863
    -32↓
     187
    -160↓
     276
    -256↓
     204
    -192↓
     122
     -96
      26
```
Quotient $= 15863$
Remainder $= 26$

(c) $608000 \div 50$

```
50)608000(12160
   −50↓|||
   ────
   108
   −100↓
   ─────
     80
    −50↓
    ────
    300
   −300↓
   ─────
      0          Quotient = 12160
    − 0          Remainder = 0
    ───
     ×
```

(d) $706050 \div 60$

```
60)706050(11767
   −60↓|||
   ────
   106
   −60↓
   ────
    460
   −420↓
   ─────
    405
   −360↓
   ─────
    450          Quotient = 11767
   −420          Remainder = 30
   ────
     30
```

(e) $389718 \div 78$

```
78)389718(4996
   −312↓||
   ─────
    777
   −702↓
   ─────
    751
   −702↓
   ─────
    498
   −468          Quotient = 4996
   ────          Remainder = 30
     30
```

(f) $488728 \div 72$

```
72)488728(6787
   −432↓||
   ─────
    567
   −504↓
   ─────
    632
   −576↓
   ─────
    568
   −504          Quotient = 6787
   ────          Remainder = 64
     64
```

14. Write the greatest common divisior of the following :

Ans. (a) 536 and 212

Factors (Divisors) of 535 and 212

$536 = 2 \times 2 \times 2 \times 67$

$212 = 2 \times 2 \times 53$

2	536
2	268
2	134
	67

2	536
2	268
	53

Common factors $= 2 \times 2 = 4$

∴ Greatest common divisor $= 4$

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(b) 432 and 216

Factors (Diviors) of 432 and 216

$432 = 2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 3$

$216 = 2 \times 2 \times 2 \times 3 \times 3 \times 3$

2	432
2	216
2	108
2	54
3	27
3	9
3	3
	1

2	216
2	108
2	54
3	27
3	9
3	3
	1

Common factors (Divisors)

$= 2 \times 2 \times 2 \times 3 \times 3 \times 3$

$= 216$

∴ Greatest common divisor $= 216$

(c) 308, 244, 510

Factors (Divisors) of 308, 244, 510

$308 = 2 \times 2 \times 7 \times 11$

$244 = 2 \times 2 \times 61$

$510 = 2 \times 5 \times 51$

2	308
2	154
7	77
	11

2	244
2	122
	61

2	510
5	255
	51

∴ Greatest common divisor $= 2$

(d) 3041, 232 and 536

Facotrs of 3041, 232 and 536

$3041 = 3041 \times 1$

$232 = 2 \times 2 \times 2 \times 29$

$536 = 2 \times 5 \times 51$

3041	3041
	1

2	232
2	116
2	58
	29

2	536
2	268
2	134
	67

∵ There is no common factor

∴ Greatest common divisor $= 1$

15. Write L.C.M. of :

(a) 21, 27, 189

3	21, 27, 189
7	7, 9, 63
9	1, 9, 9
	1, 1, 1

$\Rightarrow 3 \times 7 \times 9 = 189$

(b) 360, 320 and 240

2	360,	320,	240
2	180,	160,	120
2	90,	80,	60
2	45,	40,	30
3	45,	20,	15
5	15,	20,	5
	3,	4,	1

$\Rightarrow$ $2 \times 2 \times 2 \times 2 \times 3 \times 5 \times 4 = 960$

16. Simplify :

Ans. (a) $27 \div 9 \div 3 + 8 \times 2 \div 4$
$= 3 \div 3 + 8 \times 2 \div 4$
$= 1 + 16 \div 4$
$= 1 + 4 = 5$

(b) $6 \times 4 + 8 \div 2 - 3 \times 2$
$= 6 \times 4 + 4 - 3 \times 2$
$= 24 + 4 - 6$
$= 28 - 6 = 22$

17. Arrange the following fractions in ascending order :

Ans. (a) $\frac{4}{3}, \frac{6}{12}, \frac{2}{54}$ and $\frac{1}{8}$

LCM of

2	3,	12,	54,	8
2	3,	6,	27,	4
3	3,	3,	27,	2
3	1,	1,	9,	2
3	1,	1,	3,	2
2	1,	1,	1,	2
	1,	1,	1,	1

$\Rightarrow$ $2 \times 2 \times 3 \times 3 \times 3 \times 2 \times = 216$

Putting it,

$\Rightarrow$ $\frac{4 \times 72}{3 \times 72}, \frac{6 \times 18}{12 \times 18}, \frac{2 \times 4}{54 \times 4}, \frac{1 \times 27}{8 \times 27}$

$\frac{288}{216}, \frac{108}{216}, \frac{8}{216}, \frac{27}{216}$

Increasing order

$= \frac{8}{216} < \frac{27}{216} < \frac{108}{216} < \frac{288}{216}$

or $\frac{1}{8} < \frac{2}{54} < \frac{6}{12} < \frac{4}{3}$

(b) $\frac{1}{3}, \frac{2}{9}, \frac{5}{12}, \frac{11}{24}$ and $\frac{7}{18}$

Taking LCM

2	3,	9,	12,	24,	18
2	3,	9,	6,	12,	9
3	3,	9,	3,	6,	9
3	1,	3,	1,	2,	3
	1,	1,	1,	2,	1

$\Rightarrow$ $3 \times 3 \times 2 \times 2 \times 2 \times 1 = 72$

Putting it,

$\Rightarrow$ $\frac{1 \times 24}{3 \times 24}, \frac{2 \times 8}{9 \times 8}, \frac{5 \times 6}{12 \times 6}, \frac{11 \times 3}{24 \times 3}, \frac{7 \times 4}{18 \times 4}$

$\Rightarrow$ $\frac{24}{72}, \frac{16}{72}, \frac{30}{72}, \frac{33}{72}, \frac{28}{72}$

Increasing order

$= \frac{16}{72} < \frac{24}{72} < \frac{28}{72} < \frac{30}{72} < \frac{33}{72}$

or $\frac{2}{9} < \frac{1}{3} < \frac{7}{18} < \frac{5}{12} < \frac{11}{24}$

18. Add the following :

(a) $\frac{8}{25} + \frac{2}{15} + \frac{10}{20}$

5	25,	15,	20
	5,	3,	4

Taking LCM
$5 \times 5 \times 3 \times 4 = 300$

$\Rightarrow$ $\frac{8 \times 12}{25 \times 12} + \frac{2 \times 20}{25 \times 20} + \frac{10 \times 15}{20 \times 15}$

$\Rightarrow$ $\frac{96}{300} + \frac{40}{300} + \frac{150}{300}$

$\Rightarrow$ $\frac{286^{143}}{300_{150}} = \frac{143}{150}$

(b) $\frac{2}{3} + \frac{5}{8} + \frac{13}{26} + \frac{7}{24}$

Taking LCM

2	3,	8,	26,	24
2	3,	4,	13,	12
2	3,	2,	13,	6
3	3,	1,	13,	3
	1,	1,	13,	1

$2 \times 2 \times 2 \times 3 \times 13 = 312$

$\Rightarrow$ $\frac{2 \times 104}{3 \times 104} + \frac{5 \times 39}{8 \times 39} + \frac{13 \times 12}{26 \times 12} + \frac{7 \times 13}{24 \times 13}$

$\Rightarrow$ $\frac{208}{312} + \frac{195}{312} + \frac{156}{312} + \frac{91}{312}$

$= \frac{650^{325}}{312_{156}} = \frac{325}{156}$

19. Subtract the following :

Ans. (a) $\frac{7}{25} - \frac{3}{25} = \frac{4}{25}$

(b) $3\frac{2}{6} - \frac{2}{15} = \frac{20}{6} - \frac{2}{15}$

$= \frac{20 \times 5}{6 \times 5} - \frac{2 \times 2}{15 \times 2}$

$= \frac{100}{30} - \frac{4}{30} = \frac{96}{30}$

$= \frac{48^{16}}{15_5} = \frac{16}{5}$

20. Three bells are rung at intervals of 5, 9 and 15 minutes. They are rung simultaneously at 9 o'clock in the morning. When will they ring together again?

Ans. Taking LCM

5	5, 9, 15
3	1, 9, 3
	1, 3, 1

The bells will ring, together after, 45 minutes i.e. at 9 : 45 a.m.

21. **If 6 litres of petrol costs ₹ 90, what will be the cost of 9 litres of petrol?**

Ans. Cost of 1 litre of petrol
= (the cost of litres of pertrol) ÷ 6
= ₹ 90 ÷ 6
= ₹ 15

∴ Cost of 9 litres of petrol
= (Cost of 1 litre of petrol) × 9
= ₹ 15 × 9
= ₹ 135

∴ The cost of 9 litres of petrol is ₹ 135

22. **A bundle contains 252 five rupees notes. How much money is there in the bundle?**

Ans. Total money = 232 × ₹ 5 = ₹ 1160

23. **$17\frac{1}{2}$ kg of oil costs ₹ 498.75 paise. Find the cost of 1 kg of oil.**

Ans. Cost of 1 kg of oil = ₹ 498.75 ÷ 17.5
= ₹ 28.5

24. (a) **Add :**

Ans.

9 hrs.	40 min.	30 second
+6 hrs.	50 min.	30 second
15 hrs.	90 min.	60 second

⟹ 15 hr and (60 + 30 min) and 60 second
⟹ (15 hr + 1 hr), 30 min + 1 min and 0 second
⟹ 16 hr, 31 min and 0 second

(b) 45 min 25 second – 25 min 45 second

4̶5̶ 44 min.	2̶5̶ 85 sec.
–25 min.	45 sec.
19 min.	40 sec.

(c) 5 hours 15 minutes × 6

5 hrs.	15 min.
×	6
30 hrs.	90 min.

= 30 hrs 90 min
= 30 hrs and (60 + 30 min)
= 31 hrs 30 min

(d) 26 hours 35 minutes 10 sec. ÷ 5

5 hrs 19 min. 2 sec.
5)26 hrs. 35 min. 10 sec.
25
1 hrs.
35
+60 min.
95
−5
45
− 45
× 10

→ 10
−10
×

25. **A plane take off from Delhi at 1610 hours. It is to land at Kolkata after 3 hours 45 minutes. At what time does it land at Kolkata?**

Ans.

16 hrs.	10 min.
+3 hrs.	45 min.
19 hrs.	55 min.

19 hrs 55 minutes = 1955 hrs
Converting into 12 hour clock
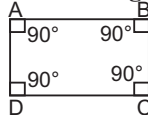1955 hrs = 7: 55 p.m.

∴ The plane will land at Kolkata on 7:55 p.m.

26. **Write the Roman numerals for the following :**

Ans. (a) XXVI   (b) XLV
(c) XXIX   (d) XL

27. **Fill in the blanks :**

Ans. (a) A rectangle having all its **sides** equal is called a square.
(b) A triangle having three equal sides is called **euqitateral** triangle.
(c) If an angle has the measure 90° then the triangle is a **right** angled triangle.
(d) If two sides of a triangle are equal it will be an **isosceles** triangle.

28. **Draw any rectangle. Measure its angle. Find the sum of the four angles of the rectangle.**

Ans.

A ⌐90°   90°⌐ B
⌐90°   90°⌐
D   C

Sum = 90° + 90° + 90 ° + 90° = 360°

29. **Using protracter, draw an angle of 120°.**

Ans.

120°

30. What is the relation between the sides of a square? What is the relation between the angles of a square?

Ans. All the sides and angles of a square are always equal

31. Write the complementary angle of each of the following angles :

Ans.
(a) 60°   [∵ 90° – 30°]
(b) 2°   [∵ 90° – 88°]
(c) 35°   [∵ 90° – 55°]
(d) 30°   [∵ 90° – 60°]

32. Write the supplementary angle of each of the following angles :

Ans.
(a) 135° [∵ 180° – 45°]
(b) 45°   [∵ 180° – 135°]
(c) 60°   [∵ 180° – 120°]
(d) 105° [∵ 180° – 75°]

33. Find the difference between the supplementary angle and the complementary angle of 80°.

Ans. Supplementary angle $= 180° – 80°$
$$= 100°$$
Complementary angle $= 90° – 80°$
$$= 10°$$
∴ Difference $= 100° – 10° = 90°$

34. Find the perimeters of the given triangles :

Ans.
(i) P = Sum of all sides
$$= 9\,cm + 5cm + 10cm = 24\,cm$$
(ii) Sum of all sides
$$= 1cm + 8\,cm + 12\,cm = 12\,cm$$

35. Find the perimeters of the given figures :
(i) P = sum of all sides
$$= 6\,cm + 4\,cm + 5\,cm + 6\,cm + 9cm$$
$$= 30\,cm$$
(ii) P = sum of all sides
$$= 2cm + 3\,cm + 2\,cm + 4\,cm + 1\,cm$$
$$+ 3\,cm + 1\,cm + 4\,cm = 20\,cm$$

2 Number and Numeration

1. Write the following numbers :

Ans. (a) 999999999   (b) 99999999
(c) 100000000

2. Rewrite the following numbers using space to separate the periods according to the Indian Place Value Chart :

Ans.
(a) 86 42 15 309
(b) 83 20 00 260
(c) 90 80 00 203
(d) 2 56 10   34 790

3. Write the numbers between :

Ans.
(a) 754321891, 754321892
(b) 654219801, 654219802
(c) 532701626, 532701627, 532701628
(d) 428785643, 428785644

4. Write the number names for each of the following numbers using the Indian System of Numeration :

Ans.
(a) Eight crore, thirty-two lakh, fifty-four thousand, one hundred and thirty-two.
(b) Nine crore, sixty-seven lakh, four hundred and thirty-five.
(c) Seven crore, eighty-six lakh, two thousand, one hundred and thirty.
(d) Nineteen crore, three lakh, four thousand and five.
(e) Eleven crore, twenty-two lakh forty-four thousand, three hundred and thirty-three
(f) One hundred and thirty crore, twelve lakh, twenty thousand five hundred and six
(g) Thirty-two crore, sixty-two thousand and seven
(h) Ninety crore, ten lakh, forty-five thousand and four

5. Write the numbers in figures :

Ans.
(a) 785202407   (b) 820000088
(c) 40205008   (d) 900600006
(e) 890000100   (f) 568070005
(g) 50602006   (h) 128506704
(i) 300500000

6. Write the period and place value of the underlined digits in the following:

Ans.
(a) Period – crore;
Place value – 70000000
(b) Period – ten crore;
Place value – 600000000
(c) Period – 7-lakh;
Place value – 700000
Period 4-ten thousand ;
Place value – 4000

(d) Period 3- ten thousand;
Place value – 30000
Period 4-ten thousand ;
Place value – 4000

7. **Rewrite each of the following numbers using space to separate the periods according to the International Place Value Chart :**

Ans. (a) 231 456 789 (b) 456 281 897
(c) 798 456 281 (d) 8456 798 812
(e) 900 900 900 (f) 2003 100 200
(g) 432 455 167 (h) 9796 543 218

8. **Write the numbers for each of the following according to the International Place Value Chart :**

Ans. (a) 90070060   (b) 70000086
(c) 506000912   (d) 116007063
(e) 2059000339 (f) 901034005
(g) 485000000

9. **Write the following numbers in words : (International system)**

Ans. (a) Two hundred and thirty-five million, eight hundred and ninety-seven thousand, two hundred and sixty-four.
(b) Four hundred million, seven hundred thousand, eight hundred.
(c) Three hundred fifteen million, seven hundred and five thousand, nine hundred and ninety-five.
(d) One billion five hundred two million four thousand four hundred and five.
(e) Two hundred and eighty-nine million, sixty-nine thousand and forty-eight.
(f) One Million four hundred and sixty-five thousand, two hundred and forty-six.
(g) Four million, three hundred and fifty thousand, five hundred.
(h) Fifty-two million, four hundred and seventy-eight thousand, two hundred and thirteen.

10. **Write the place value of the encircled digits in the following by using the International System of Numeration**

Ans. (a) 8 million   (b) 800 million
(c) 9 million   (d) 8 billion

11. **Fill in the blanks :**
Ans. (a) 49216968   (b) 52354701

(c) 88888998   (d) 909090910

12. **Write the following numbers in expanded form :**

Ans. (a) 295035206
$\Rightarrow 2 \times 100000000 + 9 \times 10000000 + 5 \times 100000 + 0 \times 10 + 3 \times 10000 + 5 \times 100000 + 2 \times 100 + 6 \times 1$
(b) 153495604
$\Rightarrow 1 \times 100000000 + 5 \times 10000000 + 3 \times 1000000 + 4 \times 100000 + 9 \times 10000 + 5 \times 1000 + 6 \times 100 + 0 \times 10 + 4 \times 1$
(c) 422120130
$\Rightarrow 4 \times 100000000 + 2 \times 10000000 + 2 \times 1000000 + 1 \times 100000 + 2 \times 10000 + 0 \times 1000 + 1 \times 100 + 3 \times 10 + 0 \times 1$
(d) 234909005
$\Rightarrow 2 \times 100000000 + 3 \times 10000000 + 4 \times 1000000 + 9 \times 100000 + 4 \times 10000 + 9 \times 1000 + 0 \times 100 + 0 \times 10 + 5 \times 1$

13. **Write the following in short form :**
Ans. (a) 53 43 67 209 (b) 400 63 309
(c) 80 00 04 007 (d) 75 02 00 451
(e) 10 34 03 217

14. **Fill in the blanks :**
Ans. (a) 1 lakh = **one hundred** thousand
(b) 1 crore = **one hundred** lakh
(c) 1 million = **ten hundred** thousand
(d) 1 million = **ten** lakh
(e) 1 crore = **ten** million
(f) 1 billion = **one thousand** million

15. **Arrange the following numbers in ascending order :**
Ans. (a) 555555558; 696969598; 879000001; 899987899
(b) 123456789; 153565879; 223456879; 233456879
(c) 109898908; 182000919; 182212919; 191900009
(d) 208888888; 252789787; 400000000; 443322446

16. **Arrange the following numbers in descending order :**
Ans. (a) 959595965, 789000202, 787878878, 565567888
(b) 999899802, 900000000, 887799232, 886699232
(c) 919000092, 909999201, 900000092, 700009119

17. Write in expanded notation according to the given system :

Ans. (b) 30,00,00,000 + 1,00,00,000
+ 10,00,000 + 1,00,000 + 20,000
+ 8,000 + 900 + 40 + 6

(c) 8,00,00,000 + 70,00,000
+ 4,00,000 + 30,000 + 4

(d) 10,00,00,000 + 6,00,00,000
+ 20,00,000 + 800 + 8

(e) 30,00,00,000 + 9,00,00,000
+ 10,00,000 + 5,00,000 + 60,000
+ 8,000 + 100 + 90 + 2

(g) 900,000,000,000 + 4,000,000,000
+ 200,000,000 + 300,000 + 8,000
+ 200 + 10 + 8

(h) 80,000,000,000 + 5,000,000,000
+ 600,000,000 + 20,000,000
+ 5,000,000 + 400,000

3   Roman Numerals

Exercise - 2

1. Write in Roman Numerals for the following :

Ans. (a) XXI, XI, XXXI, LXII, LXXV, LXXXV, XCV

(b) LXIV, XCI, LI, LXXI, LXXI, LV, LXXXVIII

(c) X, XX, XXX, XL, L, LX, LXX, LXXX, XC, C

2. Write in Hindu Arabic Numerals for the following :

Ans. (a) 64, 67, 200, 47, 49

(b) 55, 77, 88, 66, 46

(c) 97, 40, 99, 93, 69

3. Write Roman Numerals :

Ans. (a) X, XI, XII, XIII, XIV, XV, XVI, XVII, XVIII, XIX, XX

(b) XL, XLI, XLII, XLIII, XLIV, XLV, XLVI, XLVII, XLVIII, XLIX, L

(c) LXXX, LXXXI, LXXXII, LXXXIII, LXXXIV, LXXXV, LXXXVI, LXXXVII, LXXXVIII, LXXXIX, XC

4. Write correct numeral from the following numerals given in pairs :

Ans. (a) XV   (b) XXIV
(c) CL   (d) LV
(e) IV   (f) LXIV

5. Fill in the blanks with >, = or < :

Ans. (a) L   <   LX
(b) XC   <   C
(c) 99   =   XCIX
(d) LX   >   XL
(e) 25   =   XXV
(f) LVIII   <   LXVIII
(g) 83   >   XXXVIII
(h) 100   <   L
(i) XX + XXX   =   L
(j) LXX   <   LX XI

6. Arrange the following in ascending order :

Ans. (a) V, X, XVIII, XX, XXX, XC

(b) XLVIII, LXXVII, LXXX, XCVIII, C

(c) XXXVI, XLIV, LXVIII, LXXI, LXXV

7. Arrange the following in descending order :

Ans. (a) LXXVI, LXV, LIV, XXV, XVI

(b) XCIII, LXXXII, XLIII, XIX, IX

(c) LIX, LVII, LV, LIII, XLI

8. State 'True' or 'False' for the following statements given in Roman Numeral System :

Ans. (a) V subtracted from C gives VC.
                       False

(b) VII added to XX gives XXVII.
                       True

(c) L added to L gives LL.   **False**
(d) II added to XX gives XXII.   **True**
(e) I subtracted from XV gives XIV.
                       True

9. Fill in the blanks using Roman numerals :

Ans. (a) I was born in the year – .
(b) The year in progress is – .
(c) The next commonwealth Games will be held in the year **MMXIV**.
(d) India got Independence in the year **MCMXLVII**.
(e) Mahatma Gandhi died in the year **MCMXLVIII** .

Worksheet

Complete the following :

Ans. 1. 15 ११ XV
     2. 19 ११ XIX
     3. CC

4   Addition and Subtraction

Exercise - 3
Add the following :

1. **1089451, 6836129 and 8510312**

Ans.

T-L	L	T-Th	Th	H	T	O
①	①	①			①	
1	0	8	9	4	5	1
6	8	3	6	1	2	9
+8	5	1	0	3	1	2
1 6	4	3	5	8	9	2

∴ Sum = 16435892

2. **31108213, 153214 and 81334401**

Ans.

C	T-L	L	T-Th	Th	H	T	O
			①				
3	1	1	0	8	2	1	3
		1	5	3	2	1	4
+8	1	3	3	4	4	0	1
1 1	2	5	9	5	8	2	8

∴ Sum = 112595828

3. **912828, 568549 and 775355**

Ans.

L	T-Th	Th	H	T	O
①	①	①	①	②	
9	1	2	8	2	8
5	6	8	5	4	9
+ 7	7	5	3	5	5
2 2	5	6	7	3	2

∴ Sum = 2256732

4. **79643219, 3824312, 634960 and 50304090**

Ans.

C	T-L	L	T-Th	Th	H	T	O
①	②	①	①	①	①	①	
7	9	6	4	3	2	1	9
	3	8	2	4	3	1	2
		6	3	4	9	6	0
+5	0	3	0	4	0	9	0
1	3	4	4	0	6	5	81

∴ Sum = 134406581

5. **1768471, 1204987, 2760035 and 3987689**

Ans.

T-L	L	T-Th	Th	H	T	O
②	②	②	②	②	②	
1	7	6	8	4	7	1
1	2	0	4	9	8	7
2	7	6	0	0	3	5
+3	9	8	7	6	8	9
9	7	2	1	1	8	2

∴ Sum = 9721172

6. **34581021, 63510210, 87354121 and 27367898**

Ans.

C	T-L	L	T-Th	Th	H	T	O
②	①	②	①	①	①	①	
3	4	5	8	1	0	2	1
6	3	5	1	0	2	1	0
8	7	3	5	4	1	2	1
+2	7	3	6	7	8	9	8
2 1	2	8	1	3	2	5	0

∴ Sum = 212813250

7. **1089451 + 8510312**

Ans.

T-L	L	T-Th	Th	H	T	O
1	0	8	9	4	5	1
+8	5	1	0	3	1	2
9	5	9	9	7	6	3

∴ Sum = 9599763

8. **4488997 + 3322115 + 5544332**

Ans.

T-L	L	T-Th	Th	H	T	O
①	①	①	①	①	①	
4	4	8	8	9	9	7
3	3	2	2	1	1	5
+5	5	4	4	3	3	2
1 3	3	5	5	4	4	4

∴ Sum = 13355444

9. **432509506 + 7987095 + 987**

Ans.

C	T-L	L	T-Th	Th	H	T	O
	①	①		①	①	①	
4	3	2	5	0	9	5	0	6
		7	9	8	7	0	9	5
					+9	8	7
4	4	0	4	9	7	5	8	8

∴ Sum = 440497588

10. **2887098, 3703895 and 903**

Ans.

T-L	L	T-Th	Th	H	T	O
①		①	①	①		
2	8	8	7	0	9	8
3	7	0	3	8	9	5
			+9	0	3	
6	5	9	1	8	9	6

∴ Sum = 16435892

11. 777888 + 444333 + 556606

Ans.

L	T-Th	Th	H	T	O
①	①	①	①	①	
7	7	7	8	8	8
4	4	4	3	3	3
+ 5	5	6	6	0	6
1 7	7	8	8	2	7

∴ Sum = 1778827

12. 93125681 + 81354127 + 38912351

Ans.

C	T-L	L	T-Th	Th	H	T	O
①	①		①	①	①		
9	3	1	2	5	6	8	1
8	1	3	5	4	1	2	7
+3	8	9	1	2	3	5	1
2 1	3	3	9	2	1	5	9

∴ Sum = 213392159

13. 4884488 + 8484484 + 23211789 + 9012354

Ans.

C	T-L	L	T-Th	Th	H	T	O
②	①	①	①	②	③	②	
	4	8	8	4	4	8	8
	2	8	4	8	4	4	8	4
	2	3	2	1	1	7	8	9
	+9	0	1	2	3	5	4
4	5	5	9	3	1	1	5

∴ Sum = 45593115

14. Replace the missing digits in each of the following :

Ans.

a)
```
  3 2 ⑧ 7 8
  2 ③ 5 ② 4
+ 1 1 3 5 ⑨
  6 ⑦ 7 6 1
```

b)
```
  1 4 ② 3 2 1
  6 ⑦ 4 ⑧ 6 5
+ ① 5 0 3 7 7
  9 6 7 5 ⑥ 5
```

c)
```
    7 3 ② 4 2
    ⑦ 8 7 5 9
      ⑥ 2 6 7
+ 2 2 6 6 ④ 1
    ③ 8 4 9 0 ⑨
```

d)
```
  9 1 2 8 ② 8
  5 6 ⑧ 5 4 ⑨
+ 7 ⑦ 5 3 5 5
  ② 2 5 6 ⑦ 3 2
```

Exercise - 4

1. There are three candidates in an election. They received 3957642, 483175 and 371874 votes respectively. The number of invalid votes was 8764. How many votes were registered there?

Sol. Total votes registered
= 3957642 + 483175 + 371874 − 8764

```
  3 9 5 7 6 4 2
    4 8 3 1 7 5
+ 3 7 1 8 7 4
  4 8 1 2 6 9 1
```
⇒
```
  4 8 1 2 6 9 1
      − 8 7 6 4
  4 8 0 3 9 2 7
```

∴ Total votes registered = 4803927

2. Arun bought a plot of land for ₹ 1087945 to build a hotel. He spent ₹ 78432154 on the construction of the hotel. How much money did he spend in all?

Sol. Cost of the land = ₹ 1087945
Cost of the construction = ₹ 78432154
Total money spent
= ₹ 1087945 + ₹ 78432154

```
    1 0 8 7 9 4 5
+ 7 8 4 3 2 1 5 4
  7 9 5 2 0 0 9 9
```

∴ Total money spent = ₹ 79520099

3. In 2009, hand pumps were dug in drought areas. In three different states the Government spent ₹ 8095287, ₹ 9087843 and ₹ 91879432 respectively. How much money was spent in these states?

Sol. Total money spent = ₹ 8095287
+ ₹ 9087843 + ₹ 91879432

```
    8 0 9 5 2 8 7
    9 0 8 7 8 4 3
+ 9 1 8 7 9 4 3 2
  1 0 9 0 6 2 5 6 2
```

∴ Total money spent by the Government was ₹ 109062562

4. Add the greatest 8 digit number to the greatest 9 digit number.

Sol. Greatest 8 digit number = 99999999
Greatest 9 digit number = 99999999
Sum = 99999999 + 999999999

```
    9 9 9 9 9 9 9 9
+ 9 9 9 9 9 9 9 9 9
  1 0 9 9 9 9 9 9 9 8
```

∴ Sum = 1099999998

5. The number of persons who visited Vaisnav Devi in the year 2008, 2009, and 2010 were 8432467, 9432878 and 7483456 respectively. How many persons visited Vaisnav Devi in these three consecutive years?

Sol. Total persons visited
= (persons visited in the year 2008)
+ (persons visited int heyear 2009)
+ (person visited in the year 2010)
= 8432467 + 9432878 + 7483456

```
    8 4 3 2 4 6 7
    9 4 3 2 8 7 8
+ 7 4 8 3 4 5 6
  2 5 3 4 8 8 0 1
```

∴ Total person visited in three years
= 25348801

6. **A cloth mill produced 989997965 m cloth in 2008, 797877765 m cloth in 2009 and 696867664 m cloth in 2010. How much cloth did it produced in these three years?**

Sol. Cloth produced
= (cloth produced in 2008)
+ (cloth produced in 2009)
+ (cloth produced in 2010)
= 989997965 m + 797877765 m
+ 696867664

```
  9 8 9 9 9 7 9 6 5
  7 9 7 8 7 7 7 6 5
+ 6 9 6 8 6 7 6 6 4
  2 4 8 4 7 4 3 3 9 4
```

∴ Total cloth produced in three years
= 2484743394 m

7. **A survey conducted on an Indian state shows that 1623540 people have only primary education, 9768678 people have secondary education, 6437945 people have higher education and 2682635 people are illiterate. If the number of children below the age of school admission be 698781, find the population of the state.**

Sol. Population of the state = 1623540
+ 9768678 + 6437945 + 2682635
+ 698781

```
  1 6 2 3 5 4 0
  9 7 6 8 6 7 8
  6 4 3 7 9 4 5
  2 6 8 2 6 3 5
+ 6 9 8 7 8 1
  2 1 2 1 1 5 7 9
```

∴ Total population = 21211579

8. **A number exceeds 85384655 by 9463184. What is that number?**

Sol. Number = 85384655 + 9463184

```
  8 5 3 8 4 6 5 5
+ 9 4 6 3 1 8 4
  9 4 8 4 7 8 3 9
```

∴ Required number = 94847839

9. **In a certain year an industry produced 6736265 bicycles. Next year the number of bicycles produced was 1374589 more than those produced in the preceding year. How many bicycles were produced during these two years?**

Sol. Total bicycles produced
= (bicycles produced in Ist year)
+ (bicycles produced in 2nd year)
= 6736265 + (1374589 + 6736265)

```
  6 7 3 6 2 6 5
  1 3 7 4 5 8 9
+ 6 7 3 6 2 6 5
  1 4 8 4 7 1 1 9
```

∴ Total bicycles produced during two years = 14847119

10. **The difference between two numbers is 8974568. If the smaller number is 6468457, find the greater number.**

Sol. Greater number
= difference + small number
= 8974568 + 6468457

```
  8 9 7 4 5 6 8
+ 6 4 6 8 4 5 7
  1 5 4 4 3 0 2 5
```

∴ Greater number is 15443025

Exercise - 5

1. **Subtract the following :**

Ans. (a)
```
      8 4   3 12
    7 9 1 4 3 2
  – 2 8 7 0 1 6
    5 0 4 4 1 6
```
(b)
```
    14 14 13 13
    3 4 4 3 3 3
    6 6 5 5 4 4 3
  – 4 4 7 7 8 8 9
    2 1 7 7 5 5 4
```

(c)
```
        11 16 11 11
    7 12 7 16 1 1 16
    8 2 8 2 7 2 2 6
  – 4 9 1 4 8 3 3 8
    3 3 6 7 8 8 8 8
```

(d)

$$\overset{12\ 11\ 10\ 13\ 11}{\underset{}{\overset{4\ 2\ 1\ 0\ 3\ 1\ 18}{6\ 5\ 3\ 2\ 1\ 4\ 2\ 8}}}$$
$$-\ 3\ 2\ 4\ 5\ 6\ 7\ 3\ 9$$
$$\underline{3\ 2\ 8\ 6\ 4\ 6\ 8\ 9}$$

(e)
$$65656565$$
$$-16768687$$
$$\overline{48887878}$$

(f)
$$54632478$$
$$-25678324$$
$$\overline{28954154}$$

(g)
$$482013520$$
$$-294024638$$
$$\overline{187988882}$$

(h)
$$342115678$$
$$-156783272$$
$$\overline{185332406}$$

(i)
$$382042086$$
$$-222948148$$
$$\overline{159093938}$$

(j)
$$540265876$$
$$-321454286$$
$$\overline{218811590}$$

(k)
$$584321786$$
$$-342767832$$
$$\overline{241553954}$$

(l)
$$954381568$$
$$-421562258$$
$$\overline{532819310}$$

2. Subtract the following :

Ans. (a)
$$3500500$$
$$-2552416$$
$$\overline{948084}$$

∴ Difference = 948084

(b)
$$20000000$$
$$-854070$$
$$\overline{19145930}$$

∴ Difference = 19145930

(c) 7890342 – (1234567 + 1230321)

$$20000000$$
$$-854072$$
$$\overline{19145928}$$
⇒
$$7890342$$
$$-2464888$$
$$\overline{5425454}$$

∴ Difference = 5425454

3. Simplify :

Ans. (a)
$$1827615$$
$$+240428$$
$$+1275560$$
$$\overline{3343603}$$
⇒
$$3343603$$
$$-22942$$
$$\overline{3320661}$$

∴ 1827615 + 240428 + 1275560
  – 22942 = 3320661

(b)
$$57614$$
$$+2318493$$
$$+1880000$$
$$\overline{4256107}$$
⇒
$$4256107$$
$$-9474$$
$$\overline{4246633}$$

∴ 57614 + 2318493 + 1880000
  – 9474 = 4246633

(c)
$$32545875$$
$$43695625$$
$$+7265863$$
$$\overline{83507363}$$
⇒
$$83607363$$
$$-70503303$$
$$\overline{13004060}$$

∴ 32545875 + 4369525 + 7265863
  – 70503303 = 13004060

(d)
$$22516400$$
$$34450675$$
$$+60060500$$
$$\overline{117027575}$$
⇒
$$117027575$$
$$-31821799$$
$$\overline{85205776}$$

∴ 22516400 + 34450675
  + 60060500 – 31821799 = 85205776

(e)
$$85800$$
$$3742450$$
$$+4241158$$
$$\overline{8069408}$$
⇒
$$8069408$$
$$-6840$$
$$\overline{8062568}$$

∴ 85800 + 3742450 + 4241158
  – 6840 = 8062568

Exercise - 6

Solve the following word problems :

1. A company earned ₹ 56227662 in a year. If its expenses were ₹ 22747788, how much money was saved by the company?

Sol. Savings
= (Total income – total expenses)
= ₹ 56227662 – ₹ 22747788

$$56227662$$
$$-33747788$$
$$\overline{33479874}$$

∴ Money saved by the company was ₹ 33479874

2. Mr. Anil wanted to buy an aeroplane which cost ₹ 429855. He had ₹ 349800 and borrowed the rest from a bank. How much money did he borrow from the bank?

Sol. Money borrowed from the bank
= (Total cost of the aeroplane – Money with Mr. Anil)
= ₹ 429855 – ₹ 349800

$$429855$$
$$-349800$$
$$\overline{80055}$$

∴ Money borrowed from the bank
= ₹ 80055

3. The difference between, two numbers is 6457058. If the greater

number is 10452760, find the small number.

Sol. Smaller number
= (Greater number
    – difference)
= 10452760 – 6457058

$$\begin{array}{r} 10452760 \\ -\ 6457058 \\ \hline 3995702 \end{array}$$

∴ The smaller number is 3995702

4. **From a given sum of ₹ 2580327, the sum of ₹ 875200, ₹ 275579 and ₹ 557203 are spent on different occasion. Find the balance of money in hand.**

Ans. Balance
= (Total money – Total expenditure)
= ₹ 2580327 – (₹ 875200 + ₹ 275579
    + ₹ 557203)

$$\begin{array}{r} 875200 \\ 275579 \\ +\ 557203 \\ \hline 1707982 \end{array} \Rightarrow \begin{array}{r} 2580327 \\ -\ 1707982 \\ \hline 872345 \end{array}$$

∴ Balance of money in hand is ₹ 872345

5. **A publisher published 52837222 books in one year, Out of these 175500 books were on English, 4128900 books on Mathematics, 3837500 books were on Hindi and remaining books were on other subjects. How many books were published on other subjects?**

Sol. Books published on other subjects
= Total books published
    – (Books published on English
    + Books published on Mathematics
    + Books published on Hindi)
= 52837222 – (175500 + 4128900
    + 3837500)

$$\begin{array}{r} 175500 \\ 4128900 \\ +\ 3837500 \\ \hline 8141900 \end{array} \Rightarrow \begin{array}{r} 52837222 \\ -\ 8141900 \\ \hline 44695322 \end{array}$$

∴ Books published on other subjects were 44695322

6. **A cloth mill produced 301520928 m in 2009 and 353715905 m in 2010. In which year did it produced more cloth and how much?**

Sol. Cloth produced more
= (cloth produced in 2010
    – cloth produced in 2009)
= 353715905 m – 301520928 m

$$\begin{array}{r} 353715905 \\ -\ 301520928 \\ \hline 52194977 \end{array}$$

∴ In 2010 more cloth were produced, by 52194977 m.

7. **In an examination 7080500 students passed. Out of these 2580905 got first division, 4285803 got second division and the remaining got third division. How many got third division?**

Sol. Students who got third division
= Total students passed – (Students who got first division + students who got second division)
= 7080500 – (2580905 + 4285803)

$$\begin{array}{r} 2580905 \\ +\ 4285803 \\ \hline 6866708 \end{array} \Rightarrow \begin{array}{r} 7080500 \\ -\ 6866708 \\ \hline 213792 \end{array}$$

∴ The number of students who got third division is 213792

8. **What must be added to the least number formed by the digits 1, 2, 3, 4, 5, 6 to get the sum as the greatest number formed by the digits 2, 5, 7, 8, 9, 0?**

Ans. Number of be added =
(Greatest number formed by the digits
    – Least number formed by the digits)
    = 987520 – 123456

$$\begin{array}{r} 987520 \\ -\ 123456 \\ \hline 864064 \end{array}$$

∴ The number to be added to make the sum equal is 864064

9. **In 2009, there were 354155 wagons in a country. In 2010, the country had 361240 wagons. How many wagons were added from 2009 to 2010.**

Sol. Wagons added = (Wagons in 2010 – Wagons in 2009)
= 361240 – 354155

$$\begin{array}{r} 361240 \\ -\ 354155 \\ \hline 7085 \end{array}$$

∴ Wagons added from 2009 to 2010 were 7085

10. **India exported readymade garments of ₹ 659823509 in two years. If one year the export of readymade garments was for ₹ 424768925, find the amount received from export in the second year?**

Sol. Amount received in the second year = (Total amount received – Amount received in the first year)

$$\begin{array}{r} 659823509 \\ -424768925 \\ \hline 235054584 \end{array}$$

= ₹ 659823509 – ₹ 424768925

∴ Amount received in the second year was ₹ 235054584

11. Kaki bought a farmhouse for ₹ 190000500 and spent ₹ 847400 on its repairing. What was the total money that Kaki spent?

Sol. Total money spent = (Money spent on purchasing + Money spent on repairing)

= ₹ 90000500 + ₹ 847400

$$\begin{array}{r} 190000500 \\ +847400 \\ \hline 190847900 \end{array}$$

∴ Total money spent by Kaki was 19087900

12. A person won an election by getting 1224985 votes against his nearest rival who got 368872 votes. By how much margin did the person win?

Sol. Margin of the win = (Votes got by the winner – votes got by the loser)

= 1224985 votes – 368872 votes

$$\begin{array}{r} 1224985 \\ -368872 \\ \hline 856113 \end{array}$$

∴ The person won by the margin of 356113 votes

13. The money collected by selling tickets in a theatre on Sunday and Saturday was ₹ 22445600 and ₹ 8134672 respectively. What was the total collection in both days together?

Sol. Total collection = (Money collected on Sunday + Money collected on Saturday)

= ₹ 22445600 + ₹ 8134672

$$\begin{array}{r} 22445600 \\ -8134672 \\ \hline 30580272 \end{array}$$

∴ Total collection was ₹ 30580272

14. What is the difference between the greatest 9-digit number and the greatest 8-digit number?

Sol. Greates 9 – digit number = 999999999

Greates 8 – digit number = 99999999

Difference = (Greates 9 – digit number – Greates 8 digit number)

= 9999999999 – 999999999

$$\begin{array}{r} 999999999 \\ -99999999 \\ \hline 900000000 \end{array}$$

∴ Difference = 900000000

15. Find the population of the states of Maharastra and Tamil Nadu together, if the population of Maharstra is 23123000 and that of Tamil Nadu is 31725000?

Sol. Total population = (Population of Maharashtra + Population of Tamil Nadu)

= 23123000 + 31725000

$$\begin{array}{r} 23123000 \\ +31725000 \\ \hline 54848000 \end{array}$$

∴ Total population = 54848000

16. The money collected by selling tickets in a theater on Monday and Tuesday was ₹ 2565690 and ₹ 1316472 respectively. Which day's collection was more and by how much?

Sol. Money collected on Monday = ₹ 2565690

Money collected on Tuesday = ₹ 1316472

∴ Money collected on Monday was more than money collected on Tuesday

$$\begin{array}{r} 2565690 \\ -1316472 \\ \hline 1249218 \end{array}$$

∴ Monday's collection was more than Tuesday's collection by ₹ 1249218.

17. What is the difference between the greatest 8-digit number and the greatest 7-digit number?

Sol. Greatest 8- digit number = 99999999

Greatest 7 - digit number = 9999999

Difference = (Greatest 8-digit number – greatest 7-digit number)

= 99999999 – 9999999

$$\begin{array}{r} 99999999 \\ -9999999 \\ \hline 90000000 \end{array}$$

∴ Difference = 9000000

Exercise - 7

Solve the following :

1. $15 \times 1000 = \mathbf{15000}$ 　2. $2 \times 1000 = \mathbf{2000}$
3. $14 \times 1000 = \mathbf{14000}$ 　4. $13 \times 1000 = \mathbf{13000}$
5. $18 \times 1000 = \mathbf{18000}$ 　6. $11 \times 1000 = \mathbf{11000}$
7. $12 \times 1000 = \mathbf{12000}$ 　8. $3 \times 1000 = \mathbf{3000}$
9. $5 \times 1000 = \mathbf{5000}$ 　10. $31 \times 1000 = \mathbf{31000}$
11. $25 \times 1000 = \mathbf{25000}$ 12. $21 \times 1000 = \mathbf{21000}$
13. $9 \times 1000 = \mathbf{9000}$ 　14. $23 \times 1000 = \mathbf{23000}$
15. $19 \times 1000 = \mathbf{19000}$ 16. $8 \times 1000 = \mathbf{8000}$
17. $7 \times 100 = \mathbf{700}$ 　18. $6 \times 1000 = \mathbf{6000}$
19. $6 \times 100 = \mathbf{600}$ 　20. $4 \times 1000 = \mathbf{4000}$

Exercise - 8

1. Using suitable grouping, find the products of the following :

Ans.
(a) $4 \times 237 \times 25$
$= (40 \times 25) \times 237$
$= 100 \times 237 = 23700$
(b) $8 \times 1047 \times 125$
$= (8 \times 125) \times 1047$
$= 1000 \times 1047 = 1047000$
(c) $12 \times 525 \times 25$
$= (12 \times 25) \times 525$
$= 300 \times 525 = 157500$
(d) $500 \times 1236 \times 2$
$= (500 \times 2) \times 1236$
$= 1000 \times 1236 = 1236000$
(e) $5 \times 479 \times 20$
$= (5 \times 20) \times 479$
$= 100 \times 479 = 47900$
(f) $250 \times 756 \times 4$
$= (250 \times 4) \times 756$
$= 1000 \times 756 = 756000$

2. Find the products of the following :

Ans.
(a) 4065×50

```
  4065
  × 50
  0000
203250
203250
```

(b) 8497×60

```
  8497
  × 60
  0000
509820
509820
```

(c) 18245×70

```
 18245
  × 70
 00000
1277150
1277150
```

(d) 9278×300

```
  9278
 × 300
  0000
 00000
2783400
2783400
```

(e) 8689×900

```
  8689
  × 900
  0000
 00000
7820100
7820100
```

(f) 30526×800

```
 30526
 × 800
 00000
000000
24420800
24420800
```

3. Fill in the blanks :

Ans.
(a) $2346 \times \mathbf{1050} = 2346 \times 1050$
(b) $7227 \times \mathbf{1} = 7227$
(c) $5843 \times \mathbf{0} = 0$
(d) $25 \times (100 + 47)$
$\quad = (25 \times 100) + (25 \times \mathbf{47})$
(e) $\mathbf{175} \times (3010 \times 175)$
$\quad = (115 \times 3010) \times 175$

4. Solve the following :

Ans.
(a) 7219×10 　=　 **72190**
(b) 6532×10 　=　 **65320**
(c) 81675×100 　=　 **8167500**
(d) 72563×100 　=　 **7256300**
(e) 8375×1000 　=　 **8375000**
(f) 3456×1000 　=　 **3456000**
(g) 9999×1 　=　 **9999**
(h) 8852×1 　=　 **8852**
(i) 100000×0 　=　 **0**
(j) 35600×0 　=　 **0**

Exercise - 9

Solve the following :

1. 5937×36

```
  5937
  × 36
 35622
178110
213732
```

2. 4850×75

```
  4850
  × 75
 24250
339500
363750
```

3. 8125×85

```
  8125
  × 85
 40625
650000
690625
```

4. 7237×456

```
  7237
 × 456
 43422
361800
3300072
```

5. 5038×808

```
  5038
 × 808
 40304
 00000
4030400
4070704
```

6. 3497×337

```
  3497
 × 337
 24479
104910
1049100
1178489
```

7. 2508 × 5032

```
      2508
    ×5032
      5016
     75240
    000000
  12540000
  12620256
```

8. 28083 × 6325

```
     28083
    ×6325
    140415
    561660
   8424900
 168498000
 177624975
```

9. 28063 × 4026

```
     28063
    ×4026
    168378
    561260
   0000000
 112252000
 112981638
```

10. 99 × 25000

```
     25000
      ×99
    225000
   2250000
   2475000
```

11. 1587 × 80000

```
     80000
    ×1587
    560000
   6400000
  40000000
  80000000
 126960000
```

12. 5030 × 1234

```
      5030
    ×1234
     20120
    150900
   1006000
   5030000
   6207020
```

13. 400325 × 209

```
    400325
     ×209
   3602925
   0000000
  80065000
  83667925
```

14. 728090 × 222

```
    728090
     ×222
   1456180
  14561800
 145618000
 161635980
```

15. 321523 × 324

```
    321523
     ×324
   1286092
   6430460
  96456900
 104173452
```

16. 625308 × 152

```
    625308
     ×152
   1250616
  31265400
  62530800
  95046816
```

17. 354286 × 234

```
    354286
     ×234
   1417144
  10628580
  70857200
  82902924
```

18. 456783 × 576

```
    456783
     ×576
   2740698
  31974810
 228391500
 263107008
```

19. 456782 × 325

```
    456782
     ×325
   2283910
   9135640
 137034600
 148454150
```

20. 248267 × 456

```
    248267
     ×456
   1489602
  12413350
  99306800
 113209752
```

21. 325678 × 432

```
    325678
     ×432
    651356
   9770340
  13271200
 140692896
```

22. 342876 × 546

```
    342876
     ×546
   2057256
  13715040
 171438000
 187210296
```

23. 653215 × 765

```
    653215
     ×765
   3266075
  39192900
 457250500
 499709475
```

24. 845678 × 645

```
    845678
     ×645
   4228390
  33827120
 507406800
 545462310
```

25. 787653 × 657

```
    787653
     ×657
   5513571
  39382650
 472591800
 517488021
```

26. 345678 × 345

```
    345678
     ×345
   1728390
  13827120
 103703400
 119258910
```

Exercise - 10

Solve the following word problems :

1. There are 98978 apples in one box. How many apples are there in 7850 such boxes?

Sol.   Number of apples in 7850 boxes
= (Number of apples in one box) × 7850
= 98978 × 7850

```
       98978
      ×7850
       00000
     4948900
    79182400
   692846000
   776977300
```

∴   Total number of apples
= 776977300 apples

2. The cost of a car is ₹ 895470. How much do 977 cars cost?

Sol. Cost of 977 cars

= (Cost of one car) × 977

= ₹ 895470 × 977

```
    895470
     ×977
   6268290
  62680900
 805923000
 874874190
```

∴ Total cost of the cars = ₹ 874874190

3. **The weight of a box containing books is 5 kg 250 gm. How much will be the weight of 139 such boxes?**

Sol. Weight of 139 boxes

= (weight of 1 box) × 139

= 5 kg 250 gm × 139

```
    5.250
     ×139
    47250
   157500
   525000
   729.750
```

∴ Weight of boxes

= 729 kg 750 gm

4. **How many seconds are there in a day?**

Sol. Number of seconds in a day

= (Number of seconds in a minutes

× Number of minutes in an hour

× Number of hours in a day)

= 60 × 60 × 24

```
    60              3600
   ×60               ×24
    00     ⇒      14400
   360             72000
   3600            86400
```

∴ Number of seconds in a day

= 86400 seconds

5. **The cost of a T.V. set is ₹ 18525. Find the cost of such 8350 T.V. set.**

Sol. Cost of 8350 T.V. sets

= (The cost of a T.V. set) × 8350

= ₹ 18525 × 8350

```
     18525
     ×8350
     00000
    926250
   5557500
 148200000
 154683750
```

∴ Cost of T.V. sets = ₹ 154683750

6. **A factory produces 2985 bulbs in a day. How many bulbs did it produce in the year 2010 if there were 60 holidays in a year?**

Sol. Number of bulbs produced in 2010

= (Number of bulbs produced in one day) × (365 – 60)

= 2985 × 305

```
     2985
     ×305
    14925
    00000
   895500
   910425
```

∴ Number of bulbs produced in 2010

= 910425 bulbs

7. **Multiply the largest 5-digit number by the largest 3-digit number.**

Sol. Largest 5- digit number

= 99999

Largest 3- digit number

= 999

Product = 99999 × 999

```
     99999
      ×999
    899991
   8999910
  89999100
  99899001
```

∴ Product = 99899001

8. **Diksha can type 80 words in a minute, How many words will she type in 15 days, if she type daily 5 hours 30 minutes?**

Sol. Number of words typed in a day

= (Number of words typed in a minute) × 5 hrs 30 minutes

= 80 × (60 × 5 + 30) minutes

= 80 × 330 minutes

= 26400 words

```
     330
     ×80
     000
   26400
   26400
```

Number of words typed in 15 days

= (Number of words typed in one day) × 15

= 26400 × 15

```
    26400
      ×15
   132000
   264000
   396000
```

∴ Words typed in 15 days = 396000 words

9. **If the monthly fee for per student is ₹ 535, what is the total fee for 3476 students?**

Sol. Total fee for 3476 students

= (Fee for a student) × 34476

= 535 × 3476

```
     3476
     ×535
    17380
   104280
  1738000
  1859660
```

∴ Total fee = ₹1859660

10. **An engine pumps out 25500 litres of water in an hour. The engine is used for 10 hours daily. How many litres of water will it pump out in 10 days?**

Sol. Water pumped out in a day

= (Water pumped in an hour) × 10

= 25500 litres × 10

= 25500 litres

Water pumped in 10 days
= (Water pumped in one day) × 10
= 255000 litres × 10
= 2550000 litres

∴ The engine will pump out 2550000 litres of water in 10 days.

11. A bag of sugar weighs 125 kg 850 g. Find the total weight of sugar in 425 such bags.

Sol. Weight of 425 bags of sugar
= (Weight of one bag of sugar) × 425
= 125 kg 850 g × 425

```
  125.850
  × 425
  629250
  2517000
  50340000
  53486.250
```

∴ Total weight = 53486 kg 250g

12. A housing complex has 24 flats, each flat has 5 rooms. Each room require 136 floor tiles. How many tiles would be required for the housing complex?

Sol. Total number of tiles required
= (Number of flats)
× (Number of rooms)
× (Number of floor tiles in each room)
= 24 × 5 × 135 tiles

```
  24
  × 5
  120
```
⇒
```
  136
  × 120
  000
  2720
  13600
  16320
```

∴ Total number of tiles required for the housing complex = 16320 tiles

13. Anil earns ₹ 14788 per month. How much will he earn in 4 years?

Sol. Money earned by Mr Anil in 4 years
= (Money earned in one month)
× (Number of months in a year) × 4
= ₹14788 × 12 × 4
= ₹ 14788 × 48

```
  14788
  × 48
  118304
  591520
  709824
```

∴ Anil will earn ₹ 709824 in 4 years

14. A factory produce 264137 iron nails every day. How many iron nails will it produce in the month of March?

Sol. Number of nails to be produced in March = (Number of nails produced in a day) × (Number of days in the month of March)
= 264137 nails × 31

```
  264137
  × 31
  264137
  7924110
  8188247
```

∴ In the month of the March the factory will produce 8188247 nails

15. A Maruti car costs ₹ 334840. How much money is required to buy 44 such Maruti cars?

Sol. Money required to buy 44 Maruti cars
= (Cost of 1 Maruti car) × 44
= ₹ 334840 × 44

```
  334840
  × 44
  1339360
  13393600
  14732960
```

∴ Money required to buy 44 Maruti cars is ₹ 14732960

16. A box contain 20340 nuts. How many nuts will be there in 385 such boxes?

Sol. Total nuts in 385 boxes
= (Number of nuts in one box) × 385
= 20340 nuts × 385

```
  20340
  × 385
  101700
  1627200
  6102000
  7830900
```

∴ Total number of nuts
= 7830900 nuts

17. The costs of a pack of ghee is ₹ 234. Find cost of 204 such ghee packs?

Sol. Cost of 204 ghee packs
= (The cost of one ghee pack) × 204
= ₹ 234 × 204

```
  234
  × 204
  936
  0000
  46800
  47736
```

∴ The cost of 204 ghee packs = ₹ 47736

18. There are 510 pages in a notebook. How many pages are there in 254 such notebooks.

Sol. Number of pages in 254 notebooks
= (Number of pages in one notebook) × 254
= 510 × 254

```
  510
  × 254
  2040
  25500
  102000
  129540
```

∴ Pages in notebooks = 129540 pages

Exercise - 11

Find the quotient and remainder :

1.   **6990390 ÷ 7400**

Ans.
```
7400)6990390(944
    −66600↓|
      33039
     −29600↓
      34390
     −29600
       4790
```
Quotient = 944, Remainder = 4760

2.   **912563 ÷ 4000**

Ans.
```
4000)912563(228
    −8000↓|
     11256
     −8000↓
     32563
    −32000
       563
```
Quotient = 228, Remainder = 563

3.   **98376800 ÷ 100000**

Ans.
```
100000)98376800(983
      −900000↓
        837680
       −800000↓
        376800
       −300000
         76800
```
Quotient = 983 Remainder = 76800

4.   **566532367 ÷ 1000**

Ans.
```
1000)566532367(566532
    −5000↓|||
      6653
     −6000↓
      6532
     −6000↓
      5323
      5000↓
      3236
      3000
      2367
      2000
       367
```
Quotient = 544532, Remainder = 367

5.   **920010025 ÷ 8253**

Ans.
```
8253)920010025(111475
    −8253↓||||
      9471|
     −8253↓
     12180|
     −8253↓
     39270|
    −33012↓
     62582|
    −57771↓
     48115
    −41265
      6850
```
Quotient = 111475, Remainder = 6850

6.   **720050028 ÷ 9012**

Ans.
```
9012)720050028(79899
    −63084↓||
      89210|
     −81108↓
      81020|
     −72096↓
      89242|
     −81108↓
      81348
     −81108
        240
```
Quotient = 79899, Remainder = 240

7.   **82356529 ÷ 3405**

Ans.
```
3405)82356529(24186
    −6810↓|
     14256|
    −13620↓
      6365|
     −3405↓
     29602|
    −27240↓
     23629
    −20430
      3199
```
Quotient = 24186, Remainder = 3199

8.   **8697255 ÷ 1525**

Ans.
```
1525)8697255(5703
    −7625↓||
     10722|
    −10675↓
      4755
     −4575
       180
```
Quotient = 5703, Remainder = 180

9. **5820635 ÷ 2875**

Ans.
$$
\begin{array}{r}
2875)\overline{5820635}(2024 \\
-5750\downarrow\downarrow \\
\hline
7063 \\
-5750\downarrow \\
\hline
13135 \\
-11500 \\
\hline
1635
\end{array}
$$

Quotient = 2024, Remainder = 1635

10. **308509 ÷ 2314**

Ans.
$$
\begin{array}{r}
2314)\overline{908509}(392 \\
-6942\downarrow \\
\hline
21430 \\
-20826\downarrow \\
\hline
6049 \\
-4628 \\
\hline
1421
\end{array}
$$

Quotient = 392, Remainder = 1421

11. **61836704 ÷ 603**

Ans.
$$
\begin{array}{r}
603)\overline{61836704}(102548 \\
-603\downarrow\downarrow \\
\hline
1536 \\
-1206\downarrow \\
\hline
3307 \\
-3015\downarrow \\
\hline
2920 \\
-2412\downarrow \\
\hline
5084 \\
-4824 \\
\hline
260
\end{array}
$$

Quotient = 102548, Remainder = 260

12. **6384615 ÷ 216**

Ans.
$$
\begin{array}{r}
216)\overline{6384615}(29558 \\
-432\downarrow \\
\hline
2064 \\
-1944\downarrow \\
\hline
1206 \\
-1080\downarrow \\
\hline
1261 \\
-1080\downarrow \\
\hline
1815 \\
-1728 \\
\hline
87
\end{array}
$$

Quotient = 29558, Remainder = 87

13. **4519460 ÷ 264**

Ans.
$$
\begin{array}{r}
264)\overline{4519460}(17119 \\
-264\downarrow \\
\hline
1879 \\
-1848\downarrow \\
\hline
314 \\
-264\downarrow
\end{array}
\qquad
\begin{array}{r}
506 \\
-264\downarrow \\
\hline
2420 \\
-2376 \\
\hline
44
\end{array}
$$

Quotient = 17119, Remainder = 44

14. **36648067 ÷ 943**

Ans.
$$
\begin{array}{r}
943)\overline{36648067}(38863 \\
-2829\downarrow \\
\hline
8358 \\
-7544\downarrow \\
\hline
8140 \\
-7544\downarrow \\
\hline
5966 \\
-5658\downarrow \\
\hline
3087 \\
-2829 \\
\hline
258
\end{array}
$$

Quotient = 38863, Remainder = 258

15. **6224378 ÷ 584**

Ans.
$$
\begin{array}{r}
584)\overline{6224378}(10658 \\
-584\downarrow\downarrow \\
\hline
3843 \\
-3504\downarrow \\
\hline
3397 \\
-2920\downarrow \\
\hline
4778 \\
-4672 \\
\hline
106
\end{array}
$$

Quotient = 10658, Remainder = 106

16. **99999 ÷ 315**

Ans.
$$
\begin{array}{r}
315)\overline{99999}(317 \\
-945\downarrow \\
\hline
549 \\
-315\downarrow \\
\hline
2349 \\
-2205 \\
\hline
144
\end{array}
$$

Quotient = 317, Remainder = 144

17. **1523811 ÷ 37**

Ans.
$$
\begin{array}{r}
37)\overline{1523811}(41184 \\
-148\downarrow \\
\hline
43 \\
-37\downarrow \\
\hline
68 \\
-37\downarrow \\
\hline
311 \\
-296\downarrow \\
\hline
151 \\
-148 \\
\hline
3
\end{array}
$$

Quotient = 41184, Remainder = 3

18. **323465 ÷ 72**

Ans.
$$
\begin{array}{r}
72)\overline{323465}(4492 \\
-288\downarrow \\
\hline
354 \\
-288\downarrow \\
\hline
666 \\
-648\downarrow
\end{array}
\qquad
\begin{array}{r}
185 \\
-144\downarrow \\
\hline
41
\end{array}
$$

Quotient = 4492, Remainder = 41

19. **12346026 ÷ 82**

Ans.

```
82)12346026(150561
   −82↓||||
    414
   −410↓↓|||
     460
    −410↓
     502
    −492↓
     106
      −82
      24
```

Quotient = 150561, Remainder = 24

20. **149826 ÷ 68**

Ans.

```
68)149826(2203
  −136↓||
   138
  −136↓↓
    226
   −204
    22
```

Quotient = 2203, Remainder = 22

21. **18325 ÷ 43**

Ans.

```
43)18325(426
  −172↓|
   112|
   −86↓
    265
   −258
     7
```

Quotient = 426 Remainder = 7

22. **537809 ÷ 35**

Ans.

```
35)537809(15365
  −35↓|||
   187|||
  −175↓||
    128||
   −105↓|
     230|
    −210↓
      209
     −175
      34
```

Quotient = 15365, Remainder = 34

Exercise - 12

Solve the following word problems :

1. **What least number should be subtracted from 7280603 so that the remainder is exactly divided by 928?**

Sol. By dividing 7280603 by 828, we get

```
928)7280603(7845
   −6496↓||
    7846|
   −7424↓
    4220
   −3712↓
    5083
   −4640
    443
```

Here remainder is 443

So, the least number to be subtracted from 7280603 is 443.

2. **A factory makes a machine which has 12 parts. Each part requires 20 nuts. The nuts are supplied to the factory in boxes which contains 120 nuts each. If the factory wants to make 1200 machines, how many boxes of nuts would it require?**

Sol. Number of nuts required for a machine

= 12 × 20 nuts

= 240 nuts

```
  1200
 ×240
  0000
 48000
240000
288000
```

Number of nuts required for 1200 machines

= (nuts required for 1 machine) × 1200

= 240 nuts × 1200 = 288000 nuts

Number of boxes required

= (Total nuts) ÷ (number of nuts in a box)

= 288000 ÷ 120

```
120)288000(2400
  −240↓||
   480|
  −480↓
    0|
   −0↓
    0
   −0
    0
```

∴ Number of boxes required = 2400.

3. **A fruit-seller had 256000 mangoes. He packed them in boxes. Each box contained 175 mangoes. How many boxes were used and how many mangoes were left over?**

Sol.

```
175)256000(1462
  −175↓||
   810|
  −700↓
   1100
  −1050↓
    500
   −350
    150
```

Here quotient = 1462
and remainder = 150

∴ Number of boxes used = 1462
Number of mangoes left over = 150.

4. A man divides ₹ 3021850 equally among 325 poor students. How much money will each student get?

Sol. Money each student will get = (Total money) ÷ (Number of students)
= ₹ 3021850 ÷ 325

$$325\overline{)3021850}(9298$$
$$\underline{-2925\downarrow}$$
$$968$$
$$\underline{-650\downarrow}$$
$$3185$$
$$\underline{-2925\downarrow}$$
$$2600$$
$$\underline{-2600}$$
$$\times$$

∴ Each student will get ₹ 9298

5. The cost of a radio set is ₹ 945. A company realized ₹ 5977125 by selling radio sets in a year. Find the number of radio sets sold in that year.

Sol. Number of radio sets sold = (Total money realized) ÷ (cost of a radio)
= ₹ 5977125 ÷ 945

$$945\overline{)5977125}(6325$$
$$\underline{-5760\downarrow}$$
$$3071$$
$$\underline{-2835\downarrow}$$
$$2362$$
$$\underline{-1890\downarrow}$$
$$4725$$
$$\underline{-4725}$$
$$\times$$

∴ The number of radio sets sold in that year = 6325.

6. In a certain division sum, the divident is 109876, the divisor is 3456 and the remainder being 2740. Find the quotient.

Sol. Quotient = Divident ÷ Divisor

$$3456\overline{)109876}(31$$
$$\underline{-10368\downarrow}$$
$$6196$$
$$\underline{-3456}$$
$$2740$$

∴ Quotient = 31.

7. The product of two numbers is 3698640 one of them is 144. Find the other number.

Sol. The other number
= Product ÷ one number
= 3698640 ÷ 144

$$144\overline{)3698640}(25685$$
$$\underline{-288\downarrow}$$
$$818$$
$$\underline{-720\downarrow}$$
$$986$$
$$\underline{-864\downarrow}$$
$$1224$$
$$\underline{-1152\downarrow}$$
$$720$$
$$\underline{-720}$$
$$\times$$

∴ The other number is 25685.

8. A garland has three rows of flowers. Each row has 100 flowers. The flowers come in bunches, each containing 120 flowers. How many bunches of flowers would be required to make 88 such a garlands?

Sol. Number of flowers required to make one garland
= (number of rows)
 × (number of flowers in a row)
= 3 × 100 = 300 flowers

Number of flowers required to make 88 garlands
= (number of flowers in one garland) × 88

$$\begin{array}{r}300\\ \times 88\\\hline 2400\\ 24000\\ 24000\\\hline 26400\end{array}$$

= 300 × 88
= 26400 flowers

Number of bunches required
= (Number of flowers in total) ÷ (Number of flowers in a bunch)
= 26400 ÷ 120

$$120\overline{)26400}(220$$
$$\underline{-240\downarrow}$$
$$240$$
$$\underline{-240\downarrow}$$
$$0$$
$$\underline{-0}$$
$$\times$$

∴ Bunches of flowers required = 220.

9. The cost of one table is ₹ 1525. If a shopkeeper collected ₹ 826550 by selling the tables, how many tables did he sell?

Sol. Number of tables sold = (Total money collected) ÷ (the cost of one table)

$= 826550 \div 1525$

$$1525\overline{)826550}(542$$
$$\underline{-7625}\downarrow$$
$$6405$$
$$\underline{-6100}\downarrow$$
$$3050$$
$$\underline{-3050}$$
$$\times$$

∴ Total number of tables sold = 542

10. Divide the greatest number of 9 digits by the greatest number of 3-digits.

Sol. Greatest number of 9-digits
= 999999999
Greatest number of 3 - digit = 999
= 999999999 ÷ 999

$$999\overline{)999999999}(1001001$$
$$\underline{-999}$$
$$999$$
$$\underline{999}$$
$$999$$
$$\underline{999}$$
$$\times$$

∴ Quotient = 1001001

11. 2317756 tourists visited Delhi in 826 days. How many tourists visited Delhi each day?

Sol. Number of tourists visit each day
= (Total number of tourists visited)
÷ (Number of days)
= 2317756 ÷ 826

$$826\overline{)2317756}(2806$$
$$\underline{-1652}$$
$$6657$$
$$\underline{-6608}$$
$$4956$$
$$\underline{-4956}$$
$$\times$$

∴ Tourists visited Delhi each day = 2806.

12. How many years are there in 228125 days. Assume that 1 year = 365 days.

Sol. Number of years = (Total number of days) ÷ (Number of days in a year)
= 228125 ÷ 365

$$365\overline{)228125}(625$$
$$\underline{-2190}$$
$$912$$
$$\underline{-730}$$
$$1825$$
$$\underline{-1825}$$
$$\times$$

∴ There are 625 years in 228125 days.

13. The product of two numbers is 59616. If one of the numbers is 288, find the other.

Sol. The other number
= Product ÷ the first number
= 59616 ÷ 288

$$288\overline{)59616}(207$$
$$\underline{-576}\downarrow\downarrow$$
$$2016$$
$$\underline{-2016}$$
$$\times$$

∴ The other number is 207

14. ₹ 4912500 are needed to dig a borewell. 786 houses contributes equally to dig this well. How much will each house contribute?

Sol. Contribution of each house = (Total money required) ÷ (Number of houses)
= ₹4912500 ÷ 786

$$786\overline{)4912500}(6250$$
$$\underline{-4716}\downarrow||$$
$$1965$$
$$\underline{-1572}\downarrow$$
$$3930$$
$$\underline{-3930}\downarrow$$
$$0$$
$$\underline{-0}$$
$$\times$$

∴ Each house will contribute ₹ 6250.

15. A wholesaler collected ₹ 429938 by selling shirts at the rate of ₹ 454 per shirt. What is the number of shirt he sold?

Sol. Number of shirts sold = (Total money collected) ÷ (The rate of one shirt)
= 429938 ÷ 454

$$454\overline{)429938}(947$$
$$\underline{-4086}\downarrow|$$
$$2133$$
$$\underline{-1816}\downarrow$$
$$3178$$
$$\underline{-3178}$$
$$\times$$

∴ The number of shirts sold = 947.

16. I need 288144 sheets of white paper for a project. If a packet contains 144 sheets, how many packets should I buy?

Sol. Number of packets to be bought
= (Total number of sheets required)
÷ (Number of sheets in a packet)
= 288144 ÷ 144

$$144\overline{)288144}(2001$$
$$\underline{-288}$$
$$144$$
$$\underline{-144}$$
$$\times$$

∴ Number of packets to be bought = 2001